

# WELAKA NATIONAL FISH HATCHERY NEWS

January 2017



## Welaka Wildlife Fact:

Fish aren't the only species hatching at Welaka National Fish Hatchery. A pair of nesting Bald Eagles have taken up residence in the top of one of our pine trees, and as you can see from this photo, this year there are two eaglets that were hatched. Some day we hope to have our very own EAGLE CAM for better viewing of our eagles.



# Welaka NFH Provides Channel Catfish to Federal Lands to Help Connect People with Nature

Fishing is a means for families to connect with nature that can be done with minimum cost. For just a few dollars a person can buy a cane pole, some fishing line, a few hooks and a cup of worms and be fishing in no time. You may be asking what about a fishing license? According to the Florida Fish and Wildlife Commission you do NOT need a fishing license if “You are a resident who is fishing with live or natural bait, using poles or lines that are not equipped with a fishing-line-retrieval mechanism and you are fishing for noncommercial purposes in your home county. You will need to check with your state’s fish and wildlife agency to see if they have similar regulations.

The Welaka National Fish Hatchery has a long standing history working with the Air Force and National Wildlife Refuges in Florida to provide means for mili-

tary families and refuge visitors to connect with nature through fishing. In January, Welaka NFH sent out feelers to see if any of our partners in the Air Force or Wildlife Refuge System would like some Channel Catfish for their facilities. MacDill and Eglin Air Force Bases and the Lake Woodruff National Wildlife Refuge said they would be happy to get some fish for their ponds. After receiving the request for fish, the hatchery staff harvested a pond containing 4000 Channel Catfish. These catfish were then divided between the three facilities based on the acreage of the receiving waters. A few days later these catfish were then released into their new homes just waiting on someone to drop them a line.



Above: As a team, we work together to encourage the catfish to enter the kettle where they can be netted and weighed before being placed in holding tanks until the day of their release.

Below: At some locations on MacDill Air Force Base, the catfish had to be netted off the truck to be stocked in the receiving waters.



# Federally Threatened Suwannee Moccasinshell Mussels Produced at Welaka National Fish Hatchery

In our last newsletter (<https://www.fws.gov/welaka/pdf/welaka-Newsletter-11-2016.pdf>), you read about the new recovery program for the Suwannee Moccasinshell Mussel (SMS) that was started at Welaka National Fish Hatchery with collaboration with the Panama City Ecological Service Field Office, U.S. Geological Survey - Wetland and Aquatic Research Center (WARC), and Florida Fish and Wildlife Commission (FWC). If you missed the last issue, here is the Cliff Notes version: Since the first of December, the team here at the hatchery collected 26 Blackbanded Darters to use as a host for the larval form of the SMS. These larva, called glochidia, must undergo a metamorphosis while attached to the gills and fins of the host fish. Two gravid SMS were collected on 14 December from the Suwannee River with assistance from FWC biologists. These female mussels were transported back to Welaka NFH where their glochidia were used to inoculate the Blackbanded Darters. These darters were then divided into 4 aquaria where

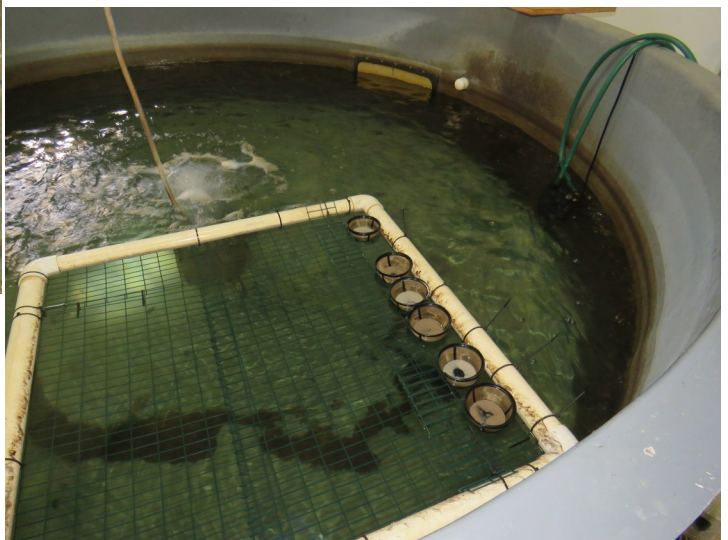
the team has waited for the newly metamorphosed mussels, called transformers, to drop off the fish where they can be collected.

Forty-five days after the host fish were inoculated, the hatchery team is pleased to announce that we have collected 716 transformers from the darters, with likely more mussels to be collected in early February. These transformers will be used to develop culture techniques here at Welaka NFH. Two types of phase one grow out methods are being tested to get these transformers which are about 200 – 250 microns in size to reach 1000 microns which equals 1 mm before they can be transferred to a phase two grow out chamber. Once in the phase two grow out chamber, the mussels will be grown until they are large enough to be used to test potential relocation sites for suitable water and substrate quality. Stay tuned as we will update you when these little guys and gals reach their next milestone.



Above: Blackbanded Darters are used as hosts to transform Suwannee Moccasinshell Mussel glochidia at Welaka NFH.

Below: Phase one culture of freshwater mussels at Welaka NFH uses permanent coffee filters floating in a tank mixed with pond and spring water to mimic the conditions where the adult mussels were found.





# Mussels in the Classroom

Welaka National Fish Hatchery has a long standing relationship with the Mayport Elementary Coastal Sciences Academy located in Atlantic Beach, FL. Back in November, the 5th grade class came to the hatchery for their annual visit, however this year they got something new. Having a Malacologist (mussel biologist) on staff, the Welaka NFH team was able to present something new to the kids and teachers when they introduced them to the wonderful world of freshwater mussels, their unique life cycle, and how they are one of the most endangered fauna in the United States. The class got to learn about recovery efforts that are ongoing in the National Fish Hatchery System and how Welaka NFH was planning on beginning a recovery program in the near future. In a post visit conversation with the lead teacher, she commented on how the kids and teachers enjoyed

the mussel presentation and how it had sparked an interest in a few young students. She said that they wanted to do a science fair project with freshwater mussels and asked if Welaka NFH could help out. After some discussion about what the kids wanted to study, the hatchery was able to provide 15 Florida shiny spike mussels, which are common in the hatchery spring run, for the project. The students were planning on looking at how mussels can help clean up water through their filtering capabilities. The team here at Welaka NFH is excited to see the next generation of conservation biologists undertaking these science fair projects knowing that the work being done at the hatchery will carry on well into the future.



Above: Mayport Elementary 5th grade class back in November learning about freshwater mussels at Welaka National Fish Hatchery.

Below: The filtering ability of freshwater mussels is amazing. Here is a similar set up the kids at Mayport Elementary will be doing for their science fair project. The two tanks were filled with the same cloudy water and mussels were added to the tank on the right. A little while later you can see the difference.



## Partners Meet to Plan Next Step in Carolina Heelsplitter Recovery

As the New Year kicked off, Fish and Aquatic Conservation employees from three National Fish Hatcheries (Welaka, Orangeburg and Bears Bluff), South Carolina Ecological Service Field Office, and South Carolina Department of Natural Resources met to kick off the 2017 recovery efforts for the Carolina Heelsplitter. The Carolina Heelsplitter is one of the most, if not the most endangered species in the state of South Carolina. The Carolina Heelsplitter is known to occur in 4 river systems in North and South Carolina. Over the past two years, these partners have worked together and have successfully propagated and cultured two year classes of Carolina Heelsplitters. One year class

is from the Catawba River system and the second is from the Pee Dee River System. The Carolina Heelsplitters from the Catawba River system will be used to augment populations in Gill's Creek after the Region 4 Aquatic Habitat Restoration Team replaces the final fish passage barrier later this summer. Plans for 2017 will be to culture and propagate Carolina Heelsplitters from the Savannah River system. While these mussels are being grown out, partners will be looking for suitable habitats in which to reintroduce them in order to bring this species back from the brink of extinction.



Left: The first year class of Carolina Heelsplitters propagated and cultured at Orangeburg National Fish Hatchery, Orangeburg, SC

Right: The second year class of Carolina Heelsplitters propagated and cultured at Orangeburg National Fish Hatchery, Orangeburg, SC.

